

CLAIM AMENDMENTS:

1. (Previously amended) A system for treating cells of an eye in a patient, comprising:

an energy emitting device having a container to receive and contain a fluid and adapted to emit energy to heat said cells to a temperature which is above body temperature and below a temperature at which protein denaturation occurs in said cells, to kill said cells or impede multiplication of said cells; and

a material delivery device that delivers said fluid including indocyanine green to said cells, said fluid being adapted to alter a physical characteristic of said cells.

2. (Original) A system as claimed in claim 1, wherein:

an amount of said indocyanine green in said fluid is between about 0.4 mg/kg to about 1.4 mg/kg of the patient's body weight.

3. (Original) A system as claimed in claim 1, wherein:

said energy emitting device includes a laser diode.

4. (Original) A system as claimed in claim 1, wherein:

said material delivery device delivers said fluid intravenously.

5. (Previously amended) A system as claimed in claim 1, wherein:

said energy emitting device includes a laser diode, which is adapted to emit said energy to activate said indocyanine green portion of said fluid.

Claim 6 (Cancelled)

7. (Previously amended) A system as claimed in claim 1, wherein:
a concentration of said indocyanine green is between about 1 microgram and 200 micrograms per milliliter of said fluid.
8. (Previously amended) A system as claimed in claim 1, wherein:
said fluid container is adapted to expand when receiving said fluid therein.
9. (Previously amended) A system as claimed in claim 1, wherein:
said fluid container comprises a permeable membrane, which is adapted to release at least some of said fluid contained in said fluid container.
10. (Previously amended) A system as claimed in claim 1, wherein:
said fluid container comprises a wall having at least one opening therein, which is adapted to release therethrough at least some of said fluid contained in said fluid container.
11. (Original) A system as claimed in claim 1, wherein:
said energy emitting device and said material delivery device are configured as a unitary device, which is adapted to emit said energy to heat said cells and to deliver said fluid to said cells.
12. (Original) A system as claimed in claim 11, wherein:

said unitary device comprises a fluid container, adapted to receive and contain a fluid therein which emits said energy as thermal energy; and

said fluid container is further adapted to release therefrom at least some of said fluid, to enable said material to contact said cells.

13. (Original) A system as claimed in claim 1, further comprises
a light emitting device, adapted to emit light energy which activates said indocyanine green in contact with said cells to cause said activated indocyanine green to kill or impede multiplication of said cells.

14. (Previously amended) A method for treating choroidal cells in of an eye of a patient, comprising the steps of:

positioning an energy emitting device at a position in relation to said choroidal cells;
emitting energy from said energy emitting device and directing said energy to said choroidal cells to heat said choroidal cells to a temperature which is above body temperature and below a temperature at which protein denaturation occurs in said choroidal cells, to kill said choroidal cells or impede multiplication of said choroidal cells;

introducing a fluid to the choroidal cells of the eye, said fluid including indocyanine green; and

activating said indocyanine green that is in contact with said choroidal cells to cause said indocyanine green to kill or impede multiplication of said choroidal cells.

Claim 15 (Cancelled)

16. (Previously amended) A method as claimed in claim 14, wherein:
a concentration of indocyanine green is between about 0.4 mg/kg to about 15 mg/kg
of the patient's body weight.

17. (Previously amended) A method as claimed in claim 14, wherein:
said activating step includes activating said indocyanine green with light emitted by a
laser diode.

18. (Previously amended) A method as claimed in claim 14, wherein
said introducing step includes introducing said fluid intravenously.

19. (Original) A method as claimed in claim 14, wherein:
said positioning step includes positioning a laser diode device at a position in relation
to said choroidal cells.

20. (Original) A method for treating cells of an eye, comprising the steps of:
positioning an energy emitting device having a container containing a fluid including
indocyanine green, at a position in relation to said cells; and
causing said energy emitting device to emit energy which activates the indocyanine
green and heats said cells to a temperature which is above body temperature and below a
temperature at which protein denaturation occurs in said cells, to kill said cells or impede
multiplication of said cells.

21. (Original) A method as claimed in claim 20, wherein:

said container is expandable; and

said positioning step includes positioning said fluid in said container at a pressure sufficient to expand said container.

22. (Original) A method as claimed in claim 20, wherein:

said container comprises a permeable membrane; and

said positioning step includes positioning said fluid in said container such that at least some of said fluid contained in said container exits said container through said permeable membrane.

23. (Original) A method as claimed in claim 20, wherein:

said container comprises a wall having at least one opening therein; and

said positioning step includes positioning said fluid in said container such that at least some of said fluid contained in said container exits said container through said at least one opening.

24. (Original) A method as claimed in claim 20, wherein

the causing step includes causing a light emitting device, adapted to emit said energy as light energy which activates said indocyanine green in contact with said cells to cause said activated indocyanine green to kill or impede multiplication of said cells.

25. (Original) A method as claimed in claim 20, wherein

said positioning step includes positioning said energy emitting device in relation to choroidal cells of the eye.

26. (Previously presented) A method of treating cells in the eye of a patient comprising the steps of:

heating cells in a target site in the eye to a temperature above body temperature and below a temperature at which protein denaturation occurs in said cells and for sufficient time to kill at least a portion of said cells in said target site or impede multiplication of said cells;

delivering a photosensitive material to said target site, said photosensitive material being capable of altering a physical characteristic of said cells; and

applying a light source to said target site and activating said photosensitive material to treat said cells in said target site.

27. (Previously presented) The method of claim 26, comprising directing a first laser beam to said target site to heat said cells in said target site, and where said light is a second laser beam having a wavelength sufficient to activate said photosensitive material.

28. (Previously presented) The method of claim 27, wherein said target site is on or in the retina.

29. (Previously presented) The method of claim 28, comprising introducing said photosensitive material into the blood stream of the patient to flow to said retina, and thereafter activating said photosensitive material on or in the retina.

30. (Previously presented) The method of claim 29, wherein said second laser beam to activate said photosensitive material is applied before, during or after heating the cells in the target site of the retina.

31. (Previously presented) The method of claim 26, wherein said photosensitive material is selected from the group consisting of aminolevulinic acid, porphyrin derivatives, purine derivatives, NPE6, ATX-10, SNET₂ and Lutex.

32. (Previously presented) A method of treating cells in the retina of the eye of a patient comprising the steps of:

directing a first laser light beam to a target site in the retina of said eye for a time sufficient to heat cells in said target site to a temperature above body temperature and below a protein denaturation temperature to kill or impede multiplication of at least a portion of cells in said target site;

introducing a photosensitive material into the blood stream of the patient to flow through the target site in the retina, said photosensitive material being capable of altering a physical characteristic of said cells; and

applying a second laser light beam to said target site to activate said photosensitive material to treat said cells in said target site of said retina.

33. (Previously presented) The method of claim 32, wherein said second laser beam to activate said photosensitive material is applied before, during or after heating the cells in the target site of the retina.

34. (Previously presented) The method of claim 32, wherein said photosensitive material is selected from the group consisting of aminolevulinic acid, porphyrin derivatives, purine derivatives, NPE6, ATX-10, SNET₂ and Lutex.

35. (Previously presented) A method of treating cells in the retina of a patient comprising the steps of:

positioning an energy emitting device at a position in relation to said cells in a target site of the retina; and

directing energy from said energy emitting device to heat cells in the retina to a temperature above body temperature and below a protein denaturation temperature to kill or impede multiplication of at least a portion of cells in said target site on the retina.

36. (Previously presented) The method of claim 35, further comprising the step of: introducing a photosensitive material into the target site of the retina, and applying a light source to said target site to activate said photosensitive material to treat the cells in said target site with said photosensitive material.

37. (Previously presented) The method of claim 35, wherein said energy emitting device is a laser and said method comprises directing a laser beam to said target site for a time sufficient to heat the cells in said target site.

38. (Previously presented) The method of claim 36, wherein said light source is a laser beam having a wavelength sufficient to activate said photosensitive material.

39. (Previously presented) The method of claim 35, comprising the step of introducing said photosensitive material into the blood stream of said patient to flow to said retina and said method comprising focusing said laser beam on the retina to activate said photosensitive material.

40. (Previously presented) The method of claim 39, wherein said laser beam to activate said photosensitive material is applied before, during or after heating the cells in the target site of the retina.

41. (Previously presented) The method of claim 39, wherein said photosensitive material is selected from the group consisting of aminolevulinic acid, porphyrin derivatives, purine derivatives, NPE6, ATX-10, SNET₂ and Lutex.

42. (New) The method of claim 26, wherein said target site is the choroid.

43. (New) The method of claim 26, wherein said target site is under the retina.

44. (New) A method of treating cells on, in or under the retina of the eye of a patient comprising the steps of:

heating cells in a target site on, in or under the retina of the eye to a temperature above body temperature and below a temperature at which protein denaturation occurs in said cells and for sufficient time to kill at least a portion of said cells in said target site or impede multiplication of said cells;

delivering a photosensitive material into the bloodstream of the patient to flow to said retina and to said target site, said photosensitive material being capable of altering a physical characteristic of said cells; and

applying a light source to said target site and activating said photosensitive material to treat said cells in said target site.

45. (New) The method of claim 44, comprising directing a first laser beam to said target site to heat said cells in said target site, and where said light source is a second laser beam having a wavelength sufficient to activate said photosensitive material and treat said cells in said target site on, in or under the retina.

46. (New) The method of claim 44, wherein said target site is under the retina.

47. (New) The method of claim 44, wherein said second laser beam to activate said photosensitive material is applied before, during or after heating the cells in the target site of the retina.

48. (New) The method of claim 44, wherein said photosensitive material is selected from the group consisting of aminolevulinic acid, porphyrin derivatives, purine derivatives, NPE6, ATX-10, SNET₂ and Lutex.

49. (New) A method of treating cells in the eye of a patient comprising the steps of:
directing a first laser light beam to a target site in the choroid or under the retina of said eye for a time sufficient to heat cells in said target site to a temperature above body

temperature and below a protein denaturation temperature to kill or impede multiplication of at least a portion of cells in said target site;

introducing a photosensitive material into the blood stream of the patient to flow through the target site in the choroid or under the retina, said photosensitive material being capable of altering a physical characteristic of said cells; and

applying a second laser light beam to said target site to activate said photosensitive material to treat said cells in said target site in the choroid or under the retina.

50. (New) The method of claim 49, wherein said second laser beam to activate said photosensitive material is applied before, during or after heating the cells in the target site of the retina.

51. (New) The method of claim 49, wherein said target site is in the choroid of the eye.

52. (New) The method of claim 49, wherein said target site is under the retina.